



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2A5      BYPASS RATIO: 5.1  
 UNIQUE ID NUMBER: 1GE019      PRESSURE RATIO ( $\pi_{00}$ ): 31.6  
 COMBUSTOR:  
 ENGINE TYPE: TF      RATED THRUST ( $F_{00}$ ) (kN): 267.3

REGULATORY DATA      **\*\* DATA SUPERSEDED \*\***      SEE FOLLOWING UID FOR REVISED DATA:      1GE020

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	14.5	59.6	50.9	9.1
AS % OF ORIGINAL LIMIT	73.8	50.5	49.4	50.6
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			61.7	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			72.6	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			82.0	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			95.5	

DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
 - DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	2.581	0.07	0.52	30.85	7.8
CLIMB OUT	85	2.2	2.082	0.08	0.52	22.86	5.4
APPROACH	30	4.0	0.687	0.20	1.93	9.11	2.3
IDLE	7	26.0	0.207	8.99	41.65	3.79	3.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			871	2966	13967	12353	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				11.1	52.4	46.3	7.8
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				1.3	3.0	2.2	1.3
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				10.02-12.49	49.73-55.2	44.62-48.92	6.1-8.4

ACCESSORY LOADS

POWER EXTRACTION      0      (kW)      AT      -      POWER SETTINGS  
 STAGE BLEED      0      (% CORE FLOW)      AT      -      POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.4-97.8
TEMPERATURE (K)	287-296
ABS HUMIDITY (kg/kg)	0.0084-0.014

FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	15.3

MANUFACTURER: General Electric Company  
 TEST ORGANIZATION: CF6 Eval Engineering  
 TEST LOCATION: Site IIIC, PTO, Peebles, Ohio  
 TEST DATES: 29/05/1985-03/06/1985

REMARKS

1. Ref GE Report R84AEB152.
2. Engine S/N's 690105 and 690005/2.

Compliance with Fuel Venting requirements:      -      ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)